

REMARKS

Claims 1-27 are pending in this application. Claims 1, 5, 13, 14, 16, 21, 22, 24, and 27 have been amended to correct matters of form and for consistency with the other claims. It is submitted that no new matter has been added as a result of the amendments to the claims. Applicant respectfully traverses the rejections for the reasons expressed herein below.

A. Rejection of claims 1, 13, 14, 24, and 27 under 35 U.S.C. § 112

Claims 1, 24, and 27 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Although Applicant maintains that the term "about the reaction temperature" does not render the claims indefinite, for consistency with the other claims and to more quickly advance this application to a condition of allowance, Applicant has deleted the word "about" from this term. It is submitted that this amendment has been made to correct matters of form only, and should not be construed as affecting the scope or equivalency of the claims.

Claims 13 and 14 have been amended so that the term "the moisture content" has proper antecedent basis. Regarding the Examiner's comments with respect to claim 14, because claim 14 is dependent from claim 1 (which does not recite a moisture content), the limitation recited in claim 14 of a moisture content that is reduced "to between about 2% and about 6%" appears to be definite and proper.

Accordingly, withdrawn of the rejections of claims 1, 13, 14, 24, and 27 under 35 U.S.C. § 112, second paragraph, is respectfully requested.

B. Rejection of claims 1-27 under 35 U.S.C. § 102(b)

Claims 1-27 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,358,729 to Ohkuma et al. ("Ohkuma"). Applicant respectfully traverses this rejection and request reconsideration of claims 1-27.

The present invention recites a method of producing resistant starch comprising selecting a reaction temperature, acidifying unmodified starch to a pH, wherein the pH is optimum to convert the unmodified starch to resistant starch when at the reaction temperature, heating the acidified unmodified starch to the reaction temperature, and maintaining the acidified unmodified starch close to the reaction temperature until the maximum yield of resistant starch has been obtained while maintaining a whiteness level between about 50 and about 100.

Ohkuma discloses an indigestible dextrin and method of forming the same, wherein the dextrin contains up to 50% of 1→4 glycosidic linkages and at least 60% of indigestible component and diminished in color substance or stimulative odor. As set forth by Ohkuma, and as noted by the Examiner, the dextrin is prepared by heat-treating corn starch with the addition of acid.

It is axiomatic that prior art is anticipatory only if every element of the claimed invention is disclosed in a single item of prior art in the same form as arranged in the claim. More specifically, anticipation is established only when a single prior art reference discloses, expressly or under principles of inherency, each and every element of a claimed invention. MPEP § 2131. Such disclosure must also be shown in as complete detail as is contained in the patent claim. MPEP § 2131

It is submitted that Ohkuma does not disclose a process of forming a resistant starch that includes acidifying unmodified starch to a pH, wherein the pH is optimum to convert the unmodified starch to resistant starch when at the reaction temperature, as recited in each of the claims of the present invention. Indeed, Ohkuma provides no teaching of a relationship between reaction temperature and an optimum pH during the formation of resistant starch. It is respectfully submitted that the portions of Ohkuma cited by the Examiner's relating to pH do not support a finding for the claimed relationship. As set forth in Experimental Example 14 of Ohkuma (col. 35, beginning at line 56), the pH measurements cited by the Examiner in Figures 2 and 3 are measurements of the dextrin product after formation and following mixing with other constituents, and not pH measurements during the process of forming the indigestible dextrin as set forth in the present claims.

Further, it is submitted that the whiteness levels ranging from 12.3 to 66 disclosed by Ohkuma and noted by the Examiner are further support that Ohkuma does not disclose or teach the process of the present invention. As discussed above, the present invention recites a process wherein the acidified unmodified starch is maintained close to the reaction temperature until the maximum yield of resistant starch has been obtained while maintaining a whiteness level between about 50 and about 100. Ohkuma does not disclose a process for forming a resistant starch wherein the whiteness level is maintained between about 50 and about 100. The whiteness levels disclosed by Ohkuma are outside and inside the claimed range, and clearly not maintained within the recited range.

Because Ohkuma does not teach each and every element of the claimed invention, it is submitted that, for at least the reasons set forth above, Ohkuma cannot form the basis of a rejection of claims 1-27 under 35 U.S.C. § 102(b). Accordingly, withdrawn of the rejections of claims 1-27 under 35 U.S.C. § 102(b) is respectfully requested.

Further, the Applicant submits that Ohkuma does not suggest the compositions and methods recited in the claims of the present invention. To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. MPEP § 2143.03. In addition, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. MPEP § 2143. Put another way, the mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination or modification. MPEP § 2143.01.

It is respectfully submitted that one of ordinary skill in the art would not be motivated to modify the process disclosed in Ohkuma to render obvious the claims of the present invention. Ohkuma provides no teaching or suggestion of a method of producing resistant starch that includes, for example: 1) acidifying unmodified starch to a pH, wherein the pH is optimum to convert the unmodified starch to resistant starch when at the reaction temperature; and/or 2) maintaining the acidified unmodified starch close to the reaction temperature until the maximum yield of resistant starch has been obtained while maintaining a whiteness level between about 50 and about 100.

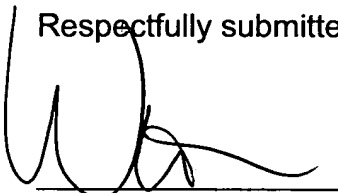
Accordingly, it is respectfully submitted that no basis exists for a finding that claims 1-27 are obvious in view of Ohkuma.

CONCLUSION

Applicant submits that claims 1-27 of the present invention recite a novel and non-obvious method for producing resistant starch. The cited reference does not teach or suggest the claimed process. In view of the foregoing, Applicant respectfully submits that the subject application is in condition for allowance. Accordingly, reconsideration of the rejections and allowance of claims 1-27 at an early date are earnestly solicited.

If the undersigned can be of assistance to the Examiner in addressing issues to advance the application to allowance, please contact the undersigned at the number set forth below.

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Date

Respectfully submitted,

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